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VHS Update

COMMITTEE ON TOURISM, OUTDOOR RECREATION AND NATURAL RESOURCES 521 House Office Building – June 26, 2007 Presented by Dr. Kurt R. Newman

Viral Hemorrhagic Septicemia

What is VHS? Viral Hemorrhagic Septicemia or VHS is a rhabdovirus that causes massive hemorrhaging in the internal organs and osmoregulation failure in fish and leads to large scale mortalities in fish populations.

It is not a human pathogen and poses no risk to human health! As always, it is advisable to cook your fish before eating.

There are clinical signs of the disease that anglers can see when handling live fish. Hemorrhagic or bloody spots and areas are often visible on the skin, in the extremities of the fins, and around the eye.

The DNR and Fisheries Division have taken a number of steps to slow the spread of VHS throughout Michigan and the Great Lakes, and to protect our inland waters and hatcheries. We are in the process of testing disinfection methods for coolwater fish eggs like muskellunge, northern pike, walleye, and sturgeon to minimize the risk to our state hatcheries. We have instituted other biosecurity measures at our hatcheries that include increased disinfection protocols for our trucks, boats and equipment and increased sampling of our salmonid broodstocks. We are also working in partnership with our sister agencies across the Great Lakes basin to acquire additional federal funding through the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) to increase our laboratory testing capacity, surveillance for the disease, and public education and outreach.

A series of new fishing regulations were recently signed by Department of Natural Resources Director Rebecca Humphries and are designed to enlist anglers and the bait industry as allies to slow the spread of all fish diseases, but particularly VHS right now. Those regulations go into effect on June 28, 2007. We must have anglers and the bait industry as allies in this effort. The DNR cannot do this on our own.

Generally, the approved regulations are designed to provide a set of best management practices for anglers and the bait industry and are consistent with those of other states and the Province of Ontario. They are an education tool to help our anglers and the bait industry become full partners in the fight against fish diseases, such as VHS. Additional details of the new regulations are available at the DNR - Fisheries Division Web site www.michigan.gov/dnrfishing.

It is critical that anglers and the bait industry watch the Fisheries Division Web site for changes to the new order. Periodic updates with new information and changes to the order issued by the Director will be posted there and made available to the public through the news media as well.

Another measure Fisheries Division is taking to address the issue of fish disease in the Great Lakes is to support new research through various non-state funding sources to fill gaps in our understanding of pathogens like VHS. Results of those studies will be important for efficient management of these diseases and ensuring the safety and viability of the fisheries resources of the state.

Finally, we are working closely with our fisheries agency partners, and state and federal legislators to address sound management of ballast water. It is believed that VHS arrived in the Great Lakes via ballast water, as have so many other aquatic invasive species we are forced to deal with once they are here. We didn't ask for this threat to our natural resources and now we are diverting precious and limited resources to managing it. Once aquatic invasive species like Eurasian watermilfoil, zebra mussel, round goby, and VHS are in the lakes, it's impossible to eradicate them. We have no choice but to manage them as part of the ecosystem; leaving fewer and fewer dollars for people and programs that support stakeholder enjoyment and use of the State's natural resources they desire.

The future of VHS in the Great Lakes remains unclear. In the near term it is likely we will continue to see some large scale mortalities in susceptible fish populations as the initial wave of infection moves through the basin. As has happened with other fish diseases, we hope that some fish will survive, recover, and convey immunity to future year classes. Long term management of VHS will require vigilance by Fisheries Division as the virus remains an opportunistic pathogen within our fish populations that strikes when conditions are favorable. If it behaves as other fish diseases have in recent history, we can expect periodic short term mortality events and on-going annual background mortality in vulnerable life stages of Great Lakes fish populations.

What can the Committee do to help? The DNR and Fisheries Division are currently managing the VHS issue within our budget, but your help in securing additional federal funding through the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) to increase our laboratory testing capacity, surveillance for the disease, and public education and outreach would be appreciated.

The establishment of VHS and other aquatic invasive species in the Great Lakes is really symptomatic of a much larger and systemic problem. Developing and enacting state law that makes ballast water management/treatment practices to minimize the risk of new introductions of aquatic invasive species in the Great Lakes mandatory will help protect Michigan's natural resources for current and future generations. Michigan has led the way on such legislation and other Great Lakes states are beginning to follow your lead. Ensuring our capacity to implement and enforce such law will be critical to effectively protecting the lakes from future invasions through ballast water exchange. Also, supporting comprehensive federal legislation that requires ballast water management to protect the Great Lakes and other U.S. waters from future invasions will help. The Great Lakes Invasive Species Control Act (HR4771) and the National Aquatic Invasive Species Act of 2007 (S725) are two such pieces of federal legislation and there are others. Whatever you can do to see this legislation become law would also be very much appreciated.